

AF Operational Safety, Suitability & Effectiveness Policy

A disciplined approach to
preserving fielded system performance



Materielist Challenge

Goal

Enable our Warfighters to Maintain Decisive Combat Edge in current and future contingencies

BUT..

With a declining real budget environment, force modernization outlays have declined as operation and maintenance costs have risen sharply

Solutions

Reduce total ownership costs of new and fielded systems while preserving / enhancing capabilities and interoperability of fielded systems.



Solution Set

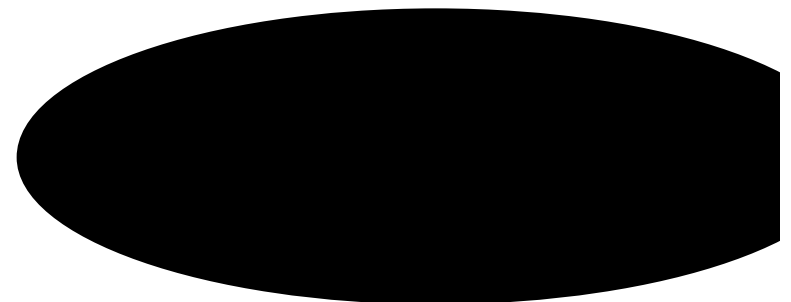
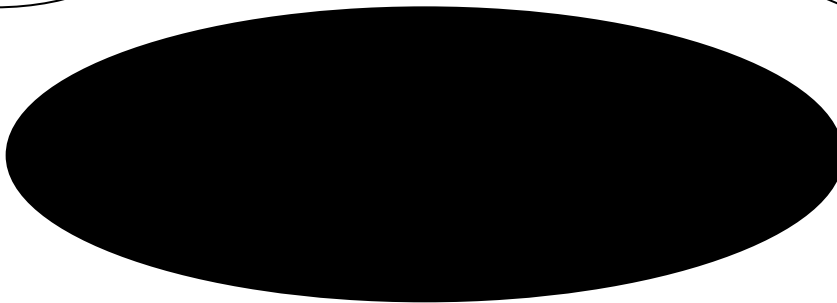
Material Integrity
Programs

RTOC

Commercial
Practice

DoD 5000
Enhancements

CAIV





Acquisition Life Cycle Management

Concept
Exploration

System
Integration

System
Demo

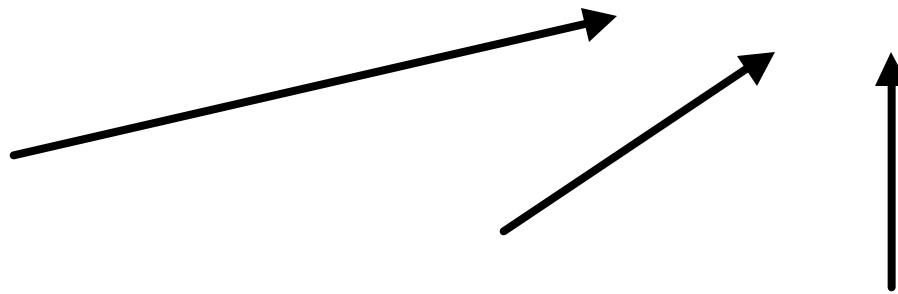
Rate Prod
& Deployment

Support

T-43 Galley Mod

C-130 Tech Orders

B1B Mishap





SECAF Policy Direction

- **Emphasized Single Manager Role**
 - **May Delegate “Authority” for Technical Tasks to Supply Chain Managers, Equipment Specialist, Contractor, etc., but Retains Responsibility for Engineering and Configuration Changes**
 - **Operational Safety, Suitability and Effectiveness (OSS&E) baselines of AF systems to be monitored and preserved**
 - » **Employ Feedback data (e.g. deficiency reports, mishap data, reliability metrics etc) to identify degradation**



OSS&E Baseline

Operational Safety - The condition of having an acceptable risk to life, health, property, or environment caused by a system or subsystem when employing that system or subsystem in an operational environment. This requires the identification of hazards, assessment of risk, determination of mitigating measures, and acceptance of residual risk.



OSS&E Baseline

Operational Suitability - The degree to which a system can be placed satisfactorily in field use, with consideration given to availability, compatibility, transportability, interoperability, reliability, wartime use rates, maintainability, safety, human factors, manpower supportability, logistics supportability, natural environmental effects and impacts, and documentation and training requirements.



OSS&E Baseline

Operational Effectiveness - The overall degree of mission accomplishment of a system used by representative personnel in the environment planned or expected (e.g., natural, electronic, threat) for operational employment of the system which considers organization, doctrine, tactics, survivability, vulnerability, and threat (including countermeasures, initial nuclear weapons effects, and nuclear, biological, and chemical contamination threats).



OSS&E Baselines Include

Configuration Baselines

- Specifications
- Drawings
- S/W Code Listings

MODs

TOs / TCTOs

Certifications

Training

Spare Parts

**Maintenance
Facilities**

MNSs / ORDs / APBs

Aging Profiles

Threat Scenarios

Operational Conops

- **ORDs & APBs Are Part of OSS&E Baselines**



Supporting Guidance & Policy

Air Force
Policy

Product Line Guidance

Armament

Aircraft

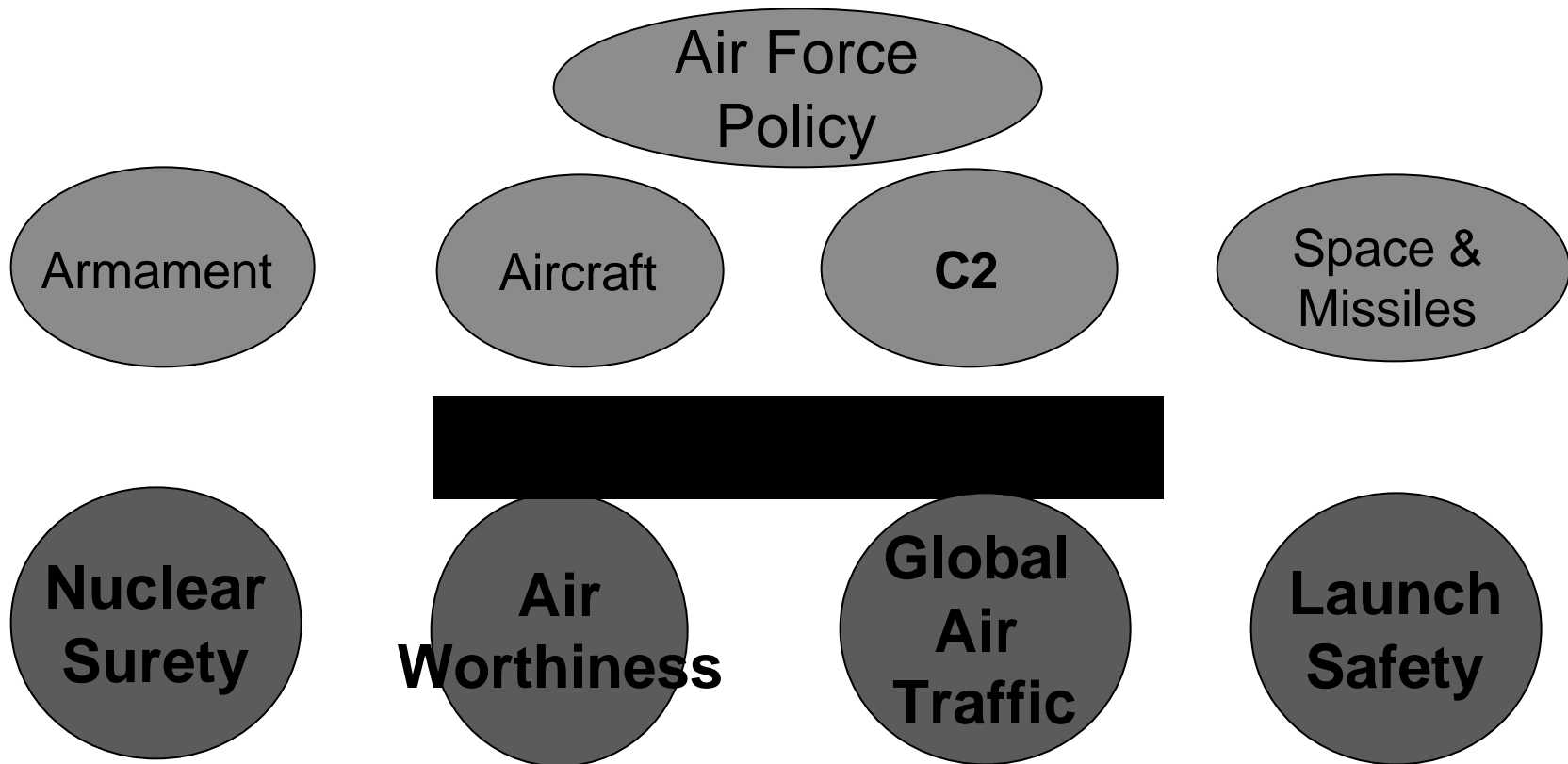
C2

Space &
Missiles

- **Identifies general approach for management of product line systems baselines including tools and training**
- **Emphasizes disciplined systems engineering approach**



Supporting Guidance & Policy



- **Safety and assurance technical processes are so critical they require dedicated policy**
- **Cross lifecycle processes**



Bedrock Philosophy

- **Technically competent people making reasonable decisions to maintain, over the operational life, safety, suitability, and effectiveness characteristics**
- **Single Manager Responsible**
- **Additional Technical Guidance & Policies Support Implementation**